

Claims

- [c1] 1.A method for manufacturing a data storage media, comprising:
disposing an identifier layer onto a surface of a stamper, said stamper having primary surface features on a first side of said stamper opposite said identifier layer;
forming secondary features on an exposed surface of said identifier layer;
installing said stamper into a mold;
injecting a molten plastic material into the mold, wherein said molten plastic physically contacts said first side; and
cooling said plastic to form said data storage media, such that a positive image of said primary surface features and of said secondary features are formed into at least a portion of a surface of said plastic.
- [c2] 2.The method of Claim 1, further comprising forming said secondary features with a laser beam.
- [c3] 3.The method of Claim 2, wherein said laser beam has wavelength of about 248 nm to about 308 nm.
- [c4] 4.The method of Claim 1, further comprising forming said secondary features by a plasma etching.
- [c5] 5.The method of Claim 1, further comprising forming said secondary features by photolithography.
- [c6] 6.The method of Claim 1, wherein said identifier layer is a managed heat transfer layer comprising a material selected from the group consisting of polyimides, polyamideimides, polyamides, polysulfone, polyethersulfone, polytetrafluoroethylene, polyetherketone, and blends, copolymers, mixtures, reaction products, and composites comprising at least one of the foregoing materials.
- [c7] 7.The method of Claim 6, wherein said material comprises polyimides.
- [c8] 8.The method of Claim 1, wherein said secondary features have valleys

09681817-061101

having a size equal to or greater than about 25 μ m in valley width.

- [c9] 9.The method of Claim 8, wherein said valley width is greater than or equal to about 30 μ m
- [c10] 10.The method of Claim 9, wherein said valley width is greater than or equal to about 50 μ m.
- [c11] 11.The method of Claim 1, wherein said secondary valley features have peaks having a peak width of greater than or equal to about 1 μ m.
- [c12] 12.The method of Claim 11, wherein said peak width is greater than or equal to about 5 μ m.
- [c13] 13.The method of Claim 12, wherein said peak width is greater than or equal to about 10 μ m.
- [c14] 14.The method of Claim 1, further comprising spin coating said identifier layer onto said stamper.
- [c15] 15.The method of Claim 1, wherein disposing said identifier layer onto said surface further comprises a method selected from the group consisting of bonding, laminating, vapor deposition, spraying, sputtering, and combinations comprising at least one of the foregoing methods.
- [c16] 16.The method of Claim 1, wherein disposing said identifier layer on said surface further comprises forming said identifier layer and laminating said identifier layer to said stamper.
- [c17] 17.The method of Claim 1, wherein said secondary features have a depth of about 0.05 μ m to about 5.0 μ m.
- [c18] 18.The method of Claim 1, wherein said secondary features have a depth of greater than or equal to about 5.0 μ m.
- [c19] 19.An apparatus for manufacturing data storage media, comprising:
means for disposing an identifier layer on a surface of a stamper, said

09691817.061101

stamper having primary surface features on a first side of said stamper opposite said identifier layer;
means for forming secondary features on an exposed surface of said identifier layer;
means for installing said stamper into a mold; means for injecting a molten plastic material into the mold, wherein said molten plastic physically contacts said first side;
means for cooling said plastic to form said data storage media, such that a positive image of said primary surface features and of said secondary features are formed into at least a portion of a surface of said plastic; and
means for releasing said data storage media from said mold.

- [c20] 20.The apparatus of Claim 19, wherein said means for disposing said identifier layer on said surface further comprises means for forming said identifier layer and means for laminating said identifier layer to said stamper.
- [c21] 21.The apparatus of Claim 19, further comprising means for spin coating said identifier layer onto said surface.
- [c22] 22.Data storage media, comprising:
primary surface features disposed on at least one side of said data storage media; and
secondary features superimposed over at least a portion of said surface features, wherein said secondary features do not inhibit readability of said data storage media.
- [c23] 23.The data storage media of Claim 22, wherein said secondary features are microscopic in size.
- [c24] 24.The data storage media of Claim 22, wherein said secondary features are macroscopic in size.
- [c25] 25.A data storage media produced in accordance with the method of Claim 1.